

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-12 (Canceled) Please cancel claims 1-12.

13. (Original) A polishing apparatus for polishing an object having a film on a surface to be polished,

comprising a processing solution supplying means for supplying a processing solution over the surface to be polished at least substantially parallel to that surface and

removing by polishing the film formed outside of the interconnection grooves by a shear stress due to the processing solution preferentially from projecting portions of said film to flatten the surface.

14. (Original) A polishing apparatus as set forth in claim 13, which polishes an object wherein the film comprises a copper film.

15. (Original) A polishing apparatus as set forth in claim 13, which supplies a processing solution containing at least a chelating agent from said processing solution supplying means.

16. (Original) A polishing apparatus as set forth in claim 15, which supplies a processing solution further containing an oxidizing agent from said processing solution

supplying means.

17. (Original) A polishing apparatus as set forth in claim 15, which supplies a processing solution further containing a surface-active agent from said processing solution supplying means.

18. (Original) A polishing apparatus for an object having a film on a surface to be polished, comprising

a cathode member arranged facing said surface;

an electrolytic solution supplying means for supplying an electrolytic solution between said surface and said cathode member and over said surface at least substantially parallel to said surface; and

a power supply for supplying voltage with said cathode member as a cathode and said film as an anode and

removing by polishing preferentially projecting portions of the film by the shear stress of the processing solution.

19. (Original) A polishing apparatus as set forth in claim 18, which polishes an object wherein the film comprises a copper film.

20. (Original) A polishing apparatus as set forth in claim 18, which supplies an electrolytic solution containing at least a chelating agent from an electrolytic solution supplying means.

21. (Original) A polishing apparatus as set forth in claim 20, which supplies an electrolytic solution further containing a surface-active agent from said processing solution supplying means.

22. (Original) A polishing apparatus as set forth in claim 20, wherein said power supply is a direct current power supply which supplies, a predetermined voltage with said cathode member as a cathode and said film as an anode.

23. (Original) A polishing apparatus as set forth in claim 21, wherein said power supply is a direct current power supply which supplies a predetermined voltage with said cathode member as a cathode and said film as an anode.

24. (Original) A polishing apparatus as set forth in claim 22, wherein said direct current power supply supplies a pulse-like voltage having a predetermined period.

25. (Original) A polishing apparatus as set forth in claim 23, wherein said direct current power supply supplies a pulse-like voltage having a predetermined period.

26. (Original) A polishing apparatus as set forth in claim 20, wherein said apparatus further comprises an anode member facing said surface to be polished and separated from said cathode member by a predetermined distance;

said electrolytic solution supplying means supplies an electrolytic solution between said surface

and said cathode member and between said surface and said anode member; and

said power supply supplies voltage to said cathode member and said anode member.

27. (Original) A polishing apparatus as set forth in claim 21, wherein said apparatus further comprises an anode member facing said surface to be polished and separated from said cathode member by a predetermined distance; said electrolytic solution supplying means supplies an electrolytic solution between said surface and said cathode member and between said surface and said anode member; and

said power supply supplies voltage to said cathode member and said anode member.

28. (Original) A polishing apparatus as set forth in claim 26, wherein said anode member is comprised of a nobler metal than the material of said film.

29. (Original) A polishing apparatus as set forth in claim 27, wherein said anode member is comprised of a nobler metal than the material of said film.

30. (Original) A polishing apparatus as set forth in claim 20, further comprising an ammeter for measuring the value of a current flowing between said cathode member and said

31. (Original) A polishing apparatus as set forth in claim 21, further comprising an ammeter for measuring the value of a current flowing between said cathode member

and said film.

32. (Original) A polishing apparatus as set forth in claim 30, further comprising a controller for controlling the voltage supplied by said power supply so that the current value obtained from said ammeter becomes constant.

33. (Original) A polishing apparatus as set forth in claim 31, further comprising a controller for controlling the voltage supplied by said power supply so that the current value obtained from said ammeter becomes constant.

34. (Original) A polishing apparatus as set forth in claim 30, which manages progress of polishing of said film by a direct current value obtained from said ammeter.

35. (Original) A polishing apparatus as set forth in claim 31, which manages progress of polishing of said film by a direct current value obtained from said ammeter.